

Claims

1. A thermoplastic molding composition, comprising
 - a) 39.9 to 99.9 wt% of at least one thermoplastic polyamide as component A,
 - b) 0.1 to 10 wt% of at least one plasticizer of the general formula (1)

$$R_1-O-(CH_2CH_2-O)_nR_2 \quad (1)$$
 with $n = 1$ to 10
 R_1, R_2 independently H, C_{1-12} -alkyl, phenyl or tolyl, having a boiling point of more than 250 °C, as component B,
 - c) 0 to 45 wt% of at least one elastomeric polymer as component C,
 - d) 0 to 60 wt% of at least one fibrous and/or particulate filler as component D,
 - e) 0 to 25 wt% of further additives as component E,
 wherein the total of wt% of components A to E is 100 wt%.
2. The thermoplastic molding composition according to claim 1, wherein component B has a boiling point of at least 290 °C, preferably at least 300 °C.
3. The thermoplastic molding composition according to claim 1 or 2, wherein in general formula (1) n is a number in the range of from 1 to 5, preferably 3 to 5, more preferably 3.8 to 4.2.
4. The thermoplastic molding composition according to one of claims 1 to 3, wherein in general formula (1) R_1 and R_2 independently are H or C_{1-8} -alkyl, preferably H or C_{1-3} -alkyl, more preferably H.
5. The thermoplastic molding composition according to one of claims 1 to 4, wherein component A is an aliphatic polyamide or semiaromatic polyamide.
6. The thermoplastic molding composition according to one of claims 1 to 5, wherein component A is selected from PA 6, PA 66, PA 6/66, PA 66/6, PA 12, PA 6.10, PA 6T/6, PA 6I/6T, PA 6T/6I, PA 9T, PA 4T and copolyamides produced by polymerization of the components
 - A') 15% to 84% by weight of at least one lactam,
 - B') 16% to 85% by weight of a monomer mixture (M) comprising the components
 - B1') at least one C_{32} - C_{40} -dimer acid and
 - B2') at least one C_4 - C_{12} -diamine,
 wherein the percentages by weight of the components A') and B') are in each case based on the sum of the percentages by weight of the components A') and B'), or mixtures thereof, and is preferably selected from PA 6, PA 66, PA 6/66, PA 66/6, PA 6/6.36 or mixtures thereof.

7. The thermoplastic molding composition according to one of claims 1 to 6, wherein component C is present in an amount of from 1 to 45 wt% and is selected from
 - b1) copolymers of ethylene with at least one comonomer selected from
 - 5 C₃₋₁₂-olefins, C₁₋₁₂-alkyl (meth)acrylates, (meth)acrylic acid and maleic anhydride as component B1),
 - b2) polyethylene or polypropylene as component B2),
 wherein components B1) and B2) may also be additionally grafted with maleic anhydride, and is preferably selected from ethylene-propylene rubbers, ethylene-propylene-diene
 10 rubbers, ethylene-butyl acrylate copolymers, copolymers of ethylene and/or propylene and maleic anhydride.
8. The thermoplastic molding composition according to one of claims 1 to 7, wherein component D comprises glass fibers, and is present in an amount of from 10 to 50 wt%, preferably
 15 15 to 45 wt%, more preferably 20 to 40 wt%.
9. A process for preparing the thermoplastic molding composition according to one of claims 1 to 8 by mixing the components A to E.
- 20 10. The use of the thermoplastic molding composition according to one of claims 1 to 8 for producing fibers, foils and moldings of any type.
11. A fiber, foil or molding, made of the thermoplastic molding composition according to one of claims 1 to 8.
- 25 12. The use of a compound of the general formula (1)

$$R_1-O-(CH_2CH_2-O)_nR_2 \quad (1)$$
 with $n = 1$ to 10
 R₁, R₂ independently H, C₁₋₁₂-alkyl, phenyl or tolyl,
 30 having a boiling point of more than 250 °C as plasticizer for thermoplastic polyamides.
13. The use according to claim 12, wherein the compound of the general formula (1) has a boiling point of at least 290 °C, preferably at least 300 °C.
- 35 14. The use according to claim 12 or 13, wherein in general formula (1) n is a number in the range of from 1 to 5, preferably 3 to 5, more preferably 3.8 to 4.2.
15. The use according to one of claims 12 to 14, wherein in general formula (1) R₁ and R₂ independently are H or C₁₋₈-alkyl, preferably H or C₁₋₃-alkyl, more preferably H.